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# BEFORE THE BOARD OF PATENT APPEALS
# AND INTERFERENCES

Application Number: 09/784,660
Filing Date: February 15, 2001
Appellant(s): KHAN ET AL.

Frank Kozak
Reg. No. 32,908
For Appellant

## EXAMINER'S ANSWER

This is in response to the appeal brief filed March 6, 2006 appealing from the Office action

mailed September 22, 2005.

## (1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

## (2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

## (3) Status of Claims

The statement of the status of claims contained in the brief is correct.

## (4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

## (5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

## (6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.


**(8) Evidence Relied Upon**

No evidence is relied upon by the examiner in the rejection of the claims under appeal.


**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wakisaka et al

(US Patent No. 6,112,174) in view of Zavoli et al (US Patent No. 6,598,016).

Regarding claim 19, Wakisaka et al (column 2 line 52) reads on the feature of a

positioning system that determines a current location of a vehicle in a region (col 3, lines 26-27).

Wakisaka et al (column 54-63) reads on the feature of an automatic speech recognition system

that matches data representations of words spoken by a user of the vehicle to a word list of data

representations of spoken names of geographic features; Wakisaka et al (AREA 1-n in figure 3b)

reads on the feature that the word list of data representations of spoken names of geographic

features includes only a portion of all available data representations of spoken names of

geographic features contained in a geographic database ... because, each AREA of Wakisaka et

al changes nature depending on whether they are in use or not, the remaining dictionaries of

Wakisaka et al (as in figure 3B) read on the feature that the word list of data representations of

spoken names of geographic features includes only a portion of all available data representations

of spoken names of geographic features, When the vehicle is in the appropriate AREA, Wakisaka et al reads on the feature that a first part that changes to include different words as the vehicle travels in the region such that the first part includes words for names of geographic features in proximity to the current location of the vehicle;

The configuration of Wakisaka et al (col 2 Lines 23-col 3 line 45) reads on the feature of a first part and a second part (corresponding to the first storage unit of claim 13 in col 11, lines 57-62), without explicitly stating that the second part does not change. With the invention for a system for using speech recognition with map data, Zavoli teaches modules VR1 and VR2 for voice recognition systems that provide for two separate dictionaries such that one module can be used for numbers and a small set of commands and the other can be a street names for a particular map (col. 5, lines 61-62) or one module can be used to store only commands and the other module can be used to store names and numbers (col. 5, lines 62-64). This set of more than one module for voice recognition with multiple dictionaries reads on the feature that the word list includes a $2^{nd}$ part that does not change to include different words as the vehicle travels in the region and that includes words for names of selected geographic features located throughout the region (col 5, line 10 to col. 6, line 31) wherein both the first and second part are available to the automatic speech recognition system at the same time (particularly when representing a trip).

This would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Zavoli to the device/method of Wakisaka et al because throughout the course of the trip, destination information does not change, while the present location does change with the progress of the

journey, and such a modification would ensure the user always has access to the most pertinent

vocabulary and/or word list available within speech recognition capabilities.

### (10) Response to Argument

Appellant's arguments filed March 6, 2006, have been fully considered but they are not

persuasive.

At page 7 of the brief, Appellant argues Claim 19 is not obvious over the combination of

Wakisaka and Zavoli because the premise for combining Wakisaka and Zavoli is factually

incorrect. Appellant further argues Zavoli discloses that the two speech modules VR1 and VR2

are not both available at the same time. The Examiner disagrees and argues Zavoli teaches that

modules VR1 and VR2 that are used for the speech recognition systems provides for two

separate dictionaries such that one module can be used for numbers and a small set of commands

and the other can be a street names for a particular map (col. 5, lines 61-62) or one module can

be used to store only commands and the other module can be used to store names and numbers

(col. 5, lines 62-64). Additionally, at col. 7, lines 25-28, Zavoli specifically suggests that the

user is able to input a desired location as a complete street address of "24 Main Street." The

Examiner argues the system necessarily requires both recognition dictionaries/modules to be

available during the same location input recognition session of "24 Main Street" as the user is

able to provide both digits and street names or otherwise the system would be inoperable.

Additionally, the Zavoli reference suggests both dictionaries/modules are available the

same time at col. 6, lines 48-51. This citation specifically indicates that if the user speaking into

the microphone states, *or the system recognizes, anything other than a digit or the cross street*

*command,* then the module stays in the Geo Start state. If the system can recognize input speech

that is speech other than a digit or the cross street command, then the system must have access to

not only a dictionary/recognizer that has a word list that contains a digit and the cross street

command, but must also have access to a dictionary/recognizer that contains a word list of input

speech corresponding to *"anything other than a digit or the cross street command"*, as described

by Zavoli at col. 5, lines 61-62 (one module can be used for numbers and a small set of

commands and the other can be a street names for a particular map).

Further, if one module can be used to store only commands and the other module can be

used to store names and numbers, as indicated by Zavoli at col. 5, lines 62-64, then the system

clearly has access to both modules at the same recognition session because the system has to be

able to recognize the *cross street command* (which requires the *first module*), a *digit* (which

requires the *second module*) and/or *anything other than a digit or the cross street command*

(either or both modules).

At page 8 of the brief, Appellant argues having both speech modules available at the

same time would directly contradict the advantage specifically expressed by Zavoli for forming

the two speech modules. The Examiner cannot concur. As previously indicated, Zavoli teaches

that modules VR1 and VR2 that are used for the speech recognition systems provides for two

separate dictionaries such that one module can be used for numbers and a small set of commands

and the other can be a street names for a particular map (col. 5, lines 61-62) or one module can

be used to store only commands and the other module can be used to store names and numbers

(col. 5, lines 62-64). Further, Zavoli at col. 5, lines 65-66 specifically teaches there are at least

two reasons for breaking up speech recognition into two systems. At col. 6, lines 11-21, Zavoli

specifically teaches another reason for implementing more than one speech recognition system is because the system can be used with multiple maps and further describes an embodiment in which VR1 can be used with many different maps because it does not include data specific to a particular map, such as street names, and VR2 can be used to store map specific words such as street names that appear in the particular map. Additionally, Zavoli further indicates that the system can also use more than just two recognition systems, and specifically suggests, *"the universe of recognized speech can be divided among the multiple speech recognition systems."* The Examiner argues that for the embodiments as described by Zavoli to function properly necessarily requires both or multiple recognition systems to be available within the same input recognition session if VR1 only contains data not specific to a particular map (general commands or words) and VR2 contains map specific words (street names).

At page 9 of the brief, Appellant argues even if Wakisaka and Zavoli were combined, the resultant combination would still fail to disclose a second part of a word list that does not change as the vehicle travels and that includes word for names of selected geographic features located throughout the region. The Examiner disagrees and argues, at col. 6, lines 11-21, Zavoli specifically teaches the system can be used with multiple maps and further describes an embodiment in which VR1 can be used with many different maps because it does not include data specific to a particular map, such as street names, and VR2 can be used to store map specific words such as street names that appear in the particular map. Further, at col. 12, lines 59-65, Zavoli teaches the system allows a user to input a description of a location in order to find that location, such that a user can state an address and then ask for the nearest hotel to that address. The system works, such that the request for the hotel, park, restaurant is available as command

requests from the commands in the dictionaries of VR1, which represent a word list that does not

change as the vehicle travels and that includes names of selected geographic features park, hotel,

restaurant located throughout the region.

At page 10 of the brief, Appellant argues there is no teaching in the references that would

motivate one of ordinary skill in the art to modify a single dictionary for geographic feature

names, as disclosed by either Wakisaka or Zavoli to have two parts. In response to appellant's

argument that there is no suggestion to combine the references, the examiner recognizes that

obviousness can only be established by combining or modifying the teachings of the prior art to

produce the claimed invention where there is some teaching, suggestion, or motivation to do so

found either in the references themselves or in the knowledge generally available to one of

ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In*

*re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, one of ordinary skill in

the art would clearly recognize the advantages of applying the method/teachings of Zavoli to the

device/method of Wakisaka et al because throughout the course of the trip, the origin and

destination information does not change (see abstract in which user states the two locations and

the system determines the path between the recognized locations), while the current location

information would change with the progress of the journey, and providing the two parts of the

recognizer would allow the system to be used with multiple maps, as specifically taught by

Zavoli at col. 6, lines 11-21, and would thereby ensure the user always has access to the most

pertinent vocabulary and/or word list available within throughout the journey for using speech

recognition capabilities.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related

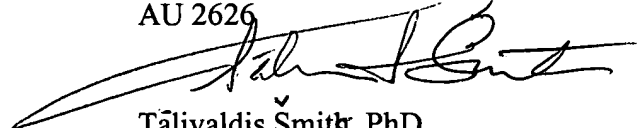Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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